CONTENTS

Part 1 (January 1990)

A. N. Atta-Krah: Alley Farming with Leucaena: Effect of Short Grazed Fallows on Soil Fertility and Crop Yields (Farming Systems Series – Number 22) 1

C. D. J. Kessler: An Agronomic Evaluation of Jackbean (*Canavalia ensiformis*) in Yucatan, Mexico. I. Plant Density 11

C. D. J. Kessler: An Agronomic Evaluation of Jackbean (*Canavalia ensiformis*) in Yucatan, Mexico. II. Defoliation and Time of Sowing 23

C. D. J. Kessler: An Agronomic Evaluation of Jackbean (*Canavalia ensiformis*) in Yucatan, Mexico. III. Germplasm 31

Bonny R. Ntare: Intercropping Morphologically Different Cowpeas with Pearl Millet in a Short Season Environment in the Sahel 41

E. F. Thomson, S. Rihawi and N. Nersoyan: Nutritive Value and Yields of Some Forage Legumes and Barley Harvested as Immature Herbage, Hay and Straw in North-West Syria 49

P. M. Hatfield, G. C. Wright and W. R. Tapsall: A Large, Retractable, Low Cost and Re-locatable Rain Out Shelter Design 57

R. C. Nageswara Rao, K. D. R. Wadia and J. H. Williams: Intercropping Short and Long Duration Groundnut (*Arachis hypogaea*) Genotypes to Increase Productivity in Environments Prone to End-of-season Droughts 63

D. J. Finney: Intercropping Experiments, Statistical Analysis, and Agricultural Practice 73

William Stephens and M. K. V. Carr: Seasonal and Clonal Differences in Shoot Extension Rates and Numbers in Tea (*Camellia sinensis*) 83

C. J. Breure and T. Menendez: The Determination of Bunch Yield Components in the Development of Inflorescences in Oil Palm (*Elaeis guineensis*) 99

C. J. Breure, T. Menendez and M. S. Powell: The Effect of Planting Density on the Yield Components of Oil Palm (*Elaeis guineensis*) 117

R. S. Malik: Prospects for *Brassica carinata* as an Oilseed Crop in India 125

Book Reviews 131

Notes for Contributors 139

Part 2 (April 1990)

G. A. Watson: Tree Crops and Farming Systems Development in the Humid Tropics (Farming Systems Series - Number 23) 143

J. G. Nagy, H. W. Ohm and S. Sawadogo: Farmer-Researcher Collaboration in Developing Cropping Practices that Involve the Complementary Use of Mechanical Tied Ridge and Fertilizer Technology for Sorghum in Burkina Faso (Farming Systems Series - Number 24) 161

N. W. Hussey: Agricultural Production in the Third World - a Challenge for Natural Pest Control 171

Ashok Kumar: Effect of Gypsum Compared with that of Grasses on the Yield of Forage Crops on a Highly Sodic Soil 185

T. Ramanujam and S. P. Ghosh: Investigations of Source-Sink Relations in Cassava Using Reciprocal Grafting 189

R. I. Smith, F. J. Harvey and M. G. R. Cannell: Pattern of Tea Shoot Growth 197

P. A. Okwuowulu, L. S. O. Ene, S. O. Odurukwe and T. I. Ojinaka: Effect of Time of Planting and Age at Harvest on the Yield of the Stem-tuber and Shoots in Ginger (*Zingiber officinale*) in the Rainforest Zone of South-eastern Nigeria 209

B. A. Oyejola: Confidence Intervals for Staple and Effective LER Values 213

K. P. Prabhakaran Nair and N. C. Khulbe: Differential Response of Wheat and Barley Genotypes to Substrate-induced Salinity under North Indian Conditions 221

V. Raja and K. C. Bishnoi: Evapotranspiration, Water Use Efficiency, Moisture Extraction Pattern and Plant Water Relations of Rape (*Brassica campestris*) Genotypes in Relation to Root Development under Varying Irrigation Schedules 227

N. R. Hulugalle, R. Lal and M. Gichuru: Effect of Five Years of No-tillage and Mulch on Soil Properties and Tuber Yield of Cassava on an Acid Ultisol in South-eastern Nigeria 235

Book Reviews 241

Part 3 (July 1990)

Robert Tripp and Jonathan Woolley: Training in Farming Systems Research: Reviews and Prospects (Farming Systems Series - Number 25) 247

D. MacColl: Studies on Maize (*Zea mays*) at Bunda, Malawi. III. Yield in Rotations with Pasture Legumes 263

D. MacColl: Studies on Maize (*Zea mays*) at Bunda, Malawi. IV. Further Investigations into the Effects of Planting Date 273

J. B. Youngquist, D. C. Carter and M. D. Clegg: Grain and Forage Yield and Stover Quality of Sorghum and Millet in Low Rainfall Environments 279

M. Thangaraj, J. C. O'Toole and S. K. De Datta: Root Response to Water Stress in Rainfed Lowland Rice 287

W. Erskine, F. J. Muehlbauer and R. W. Short: Stages of Development in Lentil 297

R. L. Bansal, S. P. Singh and V. K. Nayyar: The Critical Zinc Deficiency Level and Response to Zinc Application of Wheat on Typic Ustochrepts 303

B. C. Imrie and R. J. Lawn: Time to Flowering of Mung Bean (*Vigna radiata*) Genotypes and their Hybrids in Response to Photoperiod and Temperature 307

Rajinder Singh and S. K. Yadav: Time and Method of Weed Control in Pearl Millet 319

Mabrouk A. El-Sharkawy and James H. Cock: Photosynthesis of Cassava (*Manihot esculenta*) 325

Angelique Haugerud and Michael P. Collinson: Plants, Genes and People: Improving the Relevance of Plant Breeding in Africa 341

Book Reviews 363

Part 4 (October 1990)

S. R. Harrison, P. K. Thornton and J. B. Dent: The IBSNAT Project and Agricultural Experimentation in Developing Countries (Farming Systems Series – Number 26) 369

M. Bezuneh and F. J. Olsen: Response of Beans to Fertilizer and Seed Treatment in Central Province, Zambia 381

K. C. Reddy, J. van der Ploeg and I. Maga: Genotype Effects in Millet/Cowpea Intercropping in the Semi-arid Tropics of Niger 387

Marie-Luise Flohr, J. H. Williams and F. Lenz: The Effect of Photoperiod on the Reproductive Development of a Photoperiod Sensitive Groundnut (*Arachis hypogaea* L.) Cv. NC Ac 17090 397

A. R. Roy, B. C. Sasmal and A. K. Bhattacharjee: Effects of Intercropping Oilseeds and Pulses in Roselle (*Hibiscus sabdariffa*) 407

S. N. Azam-Ali, R. B. Matthews, J. H. Williams and J. M. Peacock: Light Use, Water Uptake and Performance of Individual Components of a Sorghum/Groundnut Intercrop 413

K. P. R. Vittal, K. Vijayalakshmi and U. M. B. Rao: The Effect of Cumulative Erosion and Rainfall on Sorghum, Pearl Millet and Castor Bean Yields under Dry Farming Conditions in Andhra Pradesh, India 429

K. S. Chanda, M. Bezuneh, P. T. Gibson, F. J. Olsen and R. E. Hudgens: An Agronomic and Economic Evaluation of Soyabean Planting Methods in the Central Province of Zambia 441

Book Reviews 447

Index 451